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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/716,622

11/20/2003

Akira Watanabe

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EXAMINER

HOTELLING, HAROLD A

ART UNIT

PAPER NUMBER

2164

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/716,622	Applicant(s) WATANABE, AKIRA	
	Examiner Harold A. Hotelling	Art Unit 2164	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 20 November 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 - 17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 - 17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>Nov. 20, 2003; Dec. 11, 2003</u> .                            | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This communication is in response to the application filed on November 20, 2003. The application has been examined. Claims 1 – 17, of which 1, 9, and 17 are in independent form, are pending in this Office Action.

#### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), claiming foreign priority to JPO application 2002-335904 (filed November 20, 2002), which papers have been placed of record in the file.

#### ***Information Disclosure Statement***

The information disclosure statements filed on November 20, 2003 and December 11, 2003 are in compliance with the provisions of 37 CFR 1.97, 1.98 and MPEP § 609. They have been placed in the application file and the information referred to therein has been considered as to the merits.

#### ***Status of Claims***

Claims 1 – 17 are rejected under 35 U.S.C. 102(e).

#### ***35 U.S.C. §102 rejection***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in . . . (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, . . .

Claims 1 – 17 are rejected under 35 U.S.C. 102(e) as anticipated by Li (U.S.

Patent number 6,754,662) (effective filing date: August 1, 2000).

With respect to independent claim 1, discloses **[a] packet search device that performs packet filter search for an inputted packet** (column 2, lines 13 – 14: “The present invention relates to a method and apparatus for classifying data packets.”), **comprising:**

**a first search processing means for searching for search conditional statements corresponding to a plurality of information areas included in header information of said packet with a first search method** (column 3, last four lines: “flows of traffic requiring different service are identified by information that can be extracted from packet headers such as source and destination IP addresses, . . .”); **and**

**a second search processing means for searching the search results of said first search processing means with a second search method that is different from said first search method** (column 4, lines 9 – 13: “Cache 108 stores a hash table with entries filled by class of service identifiers (i.e. classIDs) for (generally) the most recently detected flows. These entries are accessed by a hash key index that is generated by a hash function from packet header information . . .”).

With respect to dependent claim 2, Li teaches **[t]he packet search device**

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**according to claim 1, wherein said first search processing means divides said packet header information into a plurality of information areas and searches across each search conditional statements structured as binary search trees for each of said information areas separately** (column 5, lines 54 – 57: “the choice of data structures (i.e. a link list or a binary tree or other structure) may depend on the particular design objective of the packet classifier.”).

With respect to dependent claim 3, Li teaches **[t]he packet search device according to claim 2, wherein said second search processing means searches aggregated search results of said first search processing means using Hash method** (column 4, lines 9 – 13: “Cache 108 stores a hash table with entries filled by class of service identifiers (i.e. classIDs) for (generally) the most recently detected flows. These entries are accessed by a hash key index that is generated by a hash function from packet header information . . .”).

With respect to dependent claim 4, Li teaches **[t]he packet search device according to claim 1, comprising a search database for managing each search result of said first and second search processing means for each of said information area** (column 4, lines 9 – 13: “Cache 108 stores a hash table with entries filled by class of service identifiers (i.e. classIDs) for (generally) the most recently detected flows. These entries are accessed by a hash key index that is generated by a hash function from packet header information . . .”).

With respect to dependent claim 5, Li teaches **[t]he packet search device according to claim 4, wherein said search database has a plurality of search keys** (column 4, lines 9 – 13: “Cache 108 stores a hash table with entries filled by class of service identifiers (i.e. classIDs) for (generally) the most recently detected flows. These entries are accessed by a hash key index that is generated by a hash function from packet header information . . .”).

With respect to dependent claim 6, Li teaches **[t]he packet search device according to claim 3, wherein said second search processing means manages only combinations of search results** (column 4, lines 9 – 13: “Cache 108 stores a hash table with entries filled by class of service identifiers (i.e. classIDs) for (generally) the most recently detected flows. These entries are accessed by a hash key index that is generated by a hash function from packet header information . . .”).

With respect to dependent claim 7, Li teaches **[t]he packet search device according to claim 1, wherein at least QoS (Quality of Service) information and filter information are searched for based on said header information** (column 3, lines 55 – 60: “Memory 110 includes stored information about how different classes of network traffic are identified and how they are to be treated. Such information can include SLAs for DiffServ networks, and other filters and parameters for establishing different levels of Quality or Class of Service for different flows of traffic.”).

With respect to dependent claim 8, Li teaches **[t]he packet search device according to claim 1, wherein said packet search processing is performed at least in a router and a firewall** (column 3, lines 29 – 33: “FIG. 1 is a block diagram showing a classification architecture 100 in accordance with one example of the invention. Such an architecture can be provided in . . . an enterprise access/firewall router, a general Internet access router, etc.”).

With respect to claims 9 – 16, Li discloses **[a] packet processing search method that searches for a packet filter for an inputted packet before performing packet processing** (column 2, lines 13 – 14: “The present invention relates to a method and apparatus for classifying data packets.”), **comprising** the limitations of claims 1 – 8.

Claims 9 – 16 are rejected on grounds corresponding to the arguments given above for rejected claims 1 – 8, and are similarly rejected.

With respect to claim 17, Li discloses **[a] program for a packet processing search method that searches for a packet filter for an inputted packet before performing packet processing, causing a computer to execute** (column 10, lines 18 – 20: “the present invention can improve packet classification for long-lived flows such as streamed multimedia data, Web cache server based traffic, . . .”),

**first processing that searches for search conditional statements corresponding to a plurality of information areas included in header information**

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of said packet with a first search method (column 3, last four lines: "flows of traffic requiring different service are identified by information that can be extracted from packet headers such as source and destination IP addresses, . . ."); and

**second processing that searches the search results of said first processing with a second search method that is different from said first search method** (column 4, lines 9 – 13: "Cache 108 stores a hash table with entries filled by class of service identifiers (i.e. classIDs) for (generally) the most recently detected flows. These entries are accessed by a hash key index that is generated by a hash function from packet header information . . .").

#### ***Contact Information***

The prior art made of record, listed on form PTO-892, and not relied upon, if any, is considered pertinent to the applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harold A. Hotelling whose telephone number is (571) 270-1293. The examiner can normally be reached between 7:00 a.m. - 5:30 p.m. Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones, can be reached on (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is 703-837-8902.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for



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published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Harold A. Hotelling  
Examiner  
Art Unit 2164

HAH  
May 30, 2007

*02*

*C. Rones*  
CHARLES RONES  
SUPERVISORY PATENT EXAMINER